

II. Remarks

Reconsideration and re-examination of this application in view of the above amendments and the following remarks is herein respectfully requested.

After entering this response, claims 2-15 and 17-24 remain pending. Claims 1 and 16 have been cancelled.

Rejections Under 35 U.S.C. § 103

Claims 1, 4-16 and 19-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,301,330 issued to Trump (Trump) in view of U.S. Patent No. 6,779,826 B2 issued to Nakajima (Nakajima).

The contents of claim 1 has been incorporated into claim 11. Accordingly, claim 1 has been cancelled.

Claim 11 recites that a first capacitor is connected in electrical series connection between the switch and the wire harness. An example of such an arrangement is shown in Figure 1. Capacitor 24 is arranged in electrical series connection between the switch 14 and the wire harness 18. In contrast, the capacitor 318 of Trump is not in electrical series between the switch 250 and a wire harness. First, Trump does not teach a wire harness. Second, even if one were to combine the wire harness of Nakajima with Trump, the only logical place to put the wire harness would be between the switch 250 and the speaker 70. As such, the capacitor 318 would not be in electrical series connection between the switch 250 and the wire harness. Therefore, the combination of Trump and Nakajima does not teach the present invention according to claim 11.

Claims 4-15 depend from claim 11 and are, therefore, patentable for at least the same reasons as given above in support of claim 11.

Further, with respect to claim 15, Trump does not teach a fault detection circuit being coupled to the audio outputs of the switch 250 through the first capacitor 318. First, the audio outputs of the switch 250 are on the speaker side of switch 250. Second, capacitor 318 is between ground and the rest of the voltage level detection circuit 210, not between a fault detection circuit and the switch. Therefore, Trump cannot teach a fault detection circuit being coupled to the audio outputs of the switch through the first capacitor.

In addition, claim 8 recites that the fault detection circuit is configured to average multiple samples to generate an average output and compare the average output to a threshold. The examiner relies on Trump (column 4, lines 4-24) to teach this element. A detailed review of the text finds a discussion of a filter formed by resistor 312 and capacitor 318. A filter would only accentuate certain frequency bands of a signal. However, nothing in the text reveals averaging multiple samples to create an average output, then comparing the average output to a threshold. Accordingly, claim 8 is also patentable for this reason as well.

Similar to claim 8, claim 23 recites wherein monitoring the audio output includes averaging multiple samples to generate an average output and comparing the average output to a threshold. Therefore, the arguments provided above in support of claim 8 are equally applicable to claim 23.

Claims 19-22 and 24 depend from claim 23 and are, therefore, patentable for at least the same reasons as given above in support of claim 23.

Claims 2-3 and 17-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Trump in view of Nakajima and in further view of U.S. Patent No. 5,940,518 issued to Augustyn et al. (Augustyn).

Claims 2-3 and 17-18 depend from claim 11 or 23. Further, Augustyn does not teach the elements noted as missing from Trump and Nakajima. Therefore, claims 2-3 and 17-18 are patentable for at least the same reasons as given above in support of claim 11 or 23. Accordingly, applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 103.

Conclusion

In view of the above amendments and remarks, it is respectfully submitted that the present form of the claims are patentably distinguishable over the art of record and that this application is now in condition for allowance. Such action is requested.

Respectfully submitted by,

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